

# マルチモーダル音声コミュニケーションの発達

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# 1999 Fiscal Year Final Research Report Summary

## Development in auditory-visual speech perception

Research Project

### Project/Area Number

10610070

### Research Category

Grant-in-Aid for Scientific Research (C)

### Allocation Type

Single-year Grants

### Section

一般

### Research Field

実験系心理学

### Research Institution

Kanazawa University

### Principal Investigator

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### Project Period (FY)

1998 – 1999

### Keywords

auditory-visual / audiovisual speech perception / audiovisual integration / McGurk effect / development / 読唇 / 視聴覚統合

### Research Abstract

Inter-sensory integration has been investigated especially in terms of the nature-nurture problem. The present study examined developmental changes in auditory-visual integration in speech perception including the McGurk effect. The McGurk effect is an audiovisual illusion showing that hearing speech is influenced by conflicting visual lip-read information.

The subjects Were 3-year-old, 7-year-old, 11-year-old, and 20-year-old native speakers of Japanese. Each age group included 10 subjects. Stimuli were created from/ba/and/da/spoken by a Japanese female talker. Videotaped syllables were edited, resulting in audiovisually conflicting stimuli (audio/ba/, video/da/, and vice versa) as well as audiovisually matching stimuli (audio/ba/, video/ba/). In addition to original intact stimuli, degraded stimuli were prepared. The degraded auditory stimuli were created by lowpass filtering with a cut-off frequency of 730 kHz, the degraded visual stimuli were obtained by mosaic effect at and around …▼ More

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[Publications] Sekiyama, K.: "Face or voice? Determinant of compellingness to the McGurk effect"Proceedings of AVSP'98 (Burnham et al.(Eds.)). 33-36 (1998)



[Publications] Amano, J. & Sekiyama, K.: "The McGurk effect is influenced by the stimulus set size"Proceedings of AVSP'98 (Burnham et al.(Eds.)). 43-48 (1998)



[Publications] Braidā, L. D., Sekiyama, K. & Dix, A.: "Integration of audiovisually compatible and incompatible consonants in identification experiments"Proceedings of AVSP'98 (Burnham et al.(Eds.)). 49-54 (1998)



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